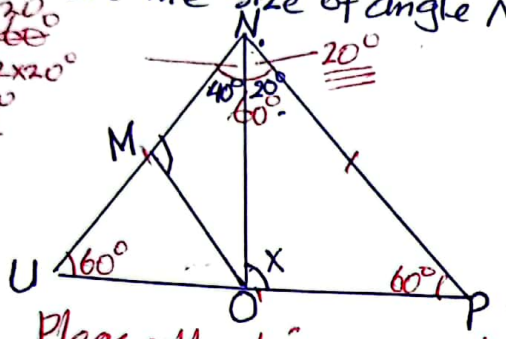
In the figure below, NUP is an equilateral triangle. Angle MNO is two thirds of angle UNP. Study it carefully and answer questions that follow.

Calculate the size of angle NOP marked x.

$\frac{2}{3} \times 30^\circ$
$1 \times 20^\circ$
$= 40^\circ$



$\angle NOP = \angle x$
$\therefore x + 60^\circ + 20^\circ = 180^\circ$
$x + 80^\circ = 180^\circ$
$x + 80^\circ - 80^\circ = 180^\circ - 80^\circ$
$x = 100^\circ$

Note: An equilateral triangle has all its angles equal (60°).
i.e $\angle U = \angle N = \angle P = 60^\circ$
But $\angle N = 40^\circ + 20^\circ$ as shown in adiagram

Please that is my submission any addition or subtraction?

2) Timothy bought a radio at sh 28,000, he later sold it to Willy at a profit of $12\frac{1}{2}\%$. How much did Willy buy the radio?

Willy's buying price is Timothy's selling price:

$= (100 + 12\frac{1}{2})\%$ of sh 28,000
$= (\frac{100}{1} + \frac{25}{2})\%$ of sh 28,000
$= \left(\frac{\frac{100}{1} \times 2 + \frac{25}{2} \times 2}{2}\right)\% \times$ sh 28,000
$= \left(\frac{200 + 25}{2}\right)\% \times$ sh 28,000
$= \left(\frac{225}{2} \div \frac{100}{1}\right) \times$ sh 28,000
$= \frac{225}{2} \times \frac{1}{100} \times$ sh $\frac{140}{28,000}$
$= 225 \times 1 \times$ sh 140
$=$ sh 31,500

NB: You can also first get what is $12\frac{1}{2}\%$ of sh 28,000 and add it to the cost price of radio from Timothy's side (sh 28,000 + sh 3500) to get the same answer.